
Note: Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, and technical proofs (TP) can be accessed and viewed online at www.engr.colostate.edu/pool. The reference numbers used in the article (e.g., NV A.2) help you locate the resources on the website. If you don't have access to the Internet, or if you have a slow connection (e.g., a modem), you may want to view the resources from a CD-ROM instead. To order one, send a check or money order (payable to David Alciatore) for \$21.45 to Pool Book CD; 626 S. Meldrum St.; Fort Collins, CO 80521. The CD-ROM is compatible with both PCs and MACs.

I've decided to take a break from my normal technical principles articles and present a topic for fun: “Billiards on the Big Screen.” One weekend, I got a wild hair and decided to watch every movie I could find in rental stores and libraries that had a billiards theme or major references to billiards. My list included:

- “*Donald in Mathmagic Land*,” **1959**, Disney, with Donald Duck.
- “*The Hustler*,” **1961**, 20th Century Fox, with Paul Newman, George C. Scott, Jackie Gleason, and Piper Laurie.
- “*The Music Man*,” **1962**, Warner Brothers, with Robert Preston, Shirley Jones, and Buddy Hackett.
- “*The Color of Money*,” **1986**, Touchstone Pictures, with Paul Newman, Tom Cruise, and Mary Elizabeth Mastrantonio.
- “*Pool Hall Junkies*,” **2002**, Gold Circle Films, with Mars Callahan, Chaz Palminteri, and Christopher Walken.

At first, I wanted to copy, and post on my website, many clips from all of the movies for readers to view and for me to discuss during a series of articles. However, this is illegal, due to those silly copyright laws. Instead, I decided to present several of the more interesting shots with illustrations and online video demonstrations. Some of the shots illustrate important principles (in the spirit of my “Illustrated Principles” column), and some are downright illegal “trick” shots. But all of them are interesting and fun to discuss and try. Maybe, after reading my articles, you will also rent the movies and try the shots like I did.

In this article, I will present some of the more interesting shots from the classic billiards flick: “*The Hustler*.” In future articles, I will show shots from the other films listed above. One exception is “*The Music Man*.” This movie doesn't show any billiards shots; however, the theme does involve billiards. This flick is a musical that tells the story of a traveling salesman (Professor Harold Hill) that shows up in a small Midwest town (River City, Iowa) to try to convince the townsfolk to let him equip and train a boys marching band. Despite the Professor's scamming intent, he ends up falling in love with the local librarian (Shirley Jones from “*The Partridge Family*”) and inspires the town with a love of music. As to be expected from a musical from the 60's, the film has a very happy ending. You might be asking yourself: Why in the heck is Dr. Dave talking about this movie in BD? Well, I am because the way Professor Hill gains the town's confidence is by convincing them they have a real problem on their hands: The local billiards hall, that has only 3-cushion billiards tables (with no pockets), has decided to install a pool (pocket billiards) table. He convinces the town of the severity of this problem by singing a very

cute song called “*Ya Got Trouble*” ... the movie is a musical after all. Here are some excerpts from the song:

...
*Ya got 1,2,3,4,5,6 pockets in a table.
Pockets that mark the difference between a gentleman and a bum
with a capital ‘B’ and that rhymes with ‘P’ and that stands for POOL*

...
*Trouble, oh we got trouble
right here in River City
with a capital ‘T’ and that rhymes with ‘P’ and that stands for POOL*

The professor uses the song to convince the town that the only way to keep the youngsters “moral after school” (i.e., away from the pool hall) is to form a marching band. The song lyrics are representative of a common theme in many of the movies: Pool has a bad reputation and is shunned by society. Fortunately, pool seems to have a better image in today’s society. Non-billiards people finally realize that most pool players are not irresponsible, pool-sharking drunks, and that pool requires significant skill and brain activity.

“*The Hustler*” is the story of “Fast” Eddie Felson (Paul Newman), a small-time, but talented, pool hustler who joins up with ruthless, bankrolled manager Bert Gordon (George C. Scott). Bert takes Eddie’s talent and girlfriend on the road to try to make some big bucks. Eddie faces the legendary “Minnesota Fats” (Jackie Gleason) and many social issues during this journey. At first glance, “*The Hustler*” seems like a terrible reflection on the world of billiards, highlighting sharking, alcohol abuse, thugs breaking thumbs, and even suicide. However, the movie did wonders for increasing the popularity of billiards. The movie “*The Color of Money*” had a similar effect on our sport’s popularity, with a slightly more positive image, in 1986.

Diagram 1 illustrates probably one of the most recognized billiards shots from all of the movies. It appears early in “*The Hustler*” when “Fast” Eddie and his partner use it to shark onlookers in a small town bar. In the shot, the 8-ball is frozen to the side rail and the cue ball is frozen to the 8-ball. The goal is to bank the 8-ball into the top-right corner pocket to win a game of 8-ball. Paul Newman executed this shot in the movie twice. He also missed it once (on purpose) to help setup the hustle. As shown in the diagram and in **NV A.2**, you hit the cue ball with top-right English with a fairly firm stroke, allowing the cue stick to lift up during your stroke. The cue stick must lift to avoid jamming the balls into the rail and to provide clearance for the 8-ball after banking off the rail. The top English (follow) helps with this. The right English on the cue ball transfers left English to the 8-ball which causes it to deflect left off the rail towards the corner pocket. Only a small amount of right English is required. This shot is fun and relatively easy to execute and is still popular with today’s trick shot artists. Look for it during showings of the “*Trick Shot Magic*” tournaments that often air on ESPN.

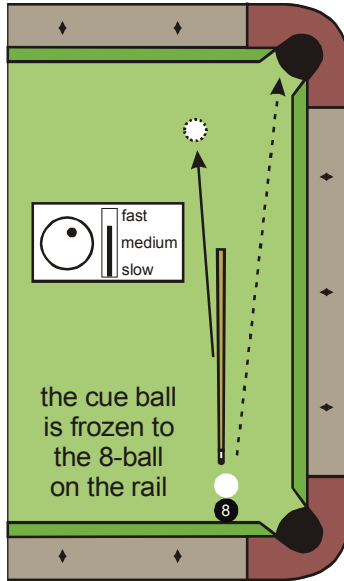


Diagram 1 8-ball bank hustle shot



NV A.2 – 8-ball bank hustle shot

Diagram 2 shows a shot from “Fast” Eddie’s first match-up with “Minnesota Fats.” Paul Newman says:

“Well, you don’t leave much when you miss, do you ‘Fat Man?’”

Then Jackie Gleason rightfully responds:

“That’s what the game is all about.”

Then Paul Newman executes the shot, pocketing the 2-ball in the side pocket. The only problem with this shot is that it is illegal! The only way to make it is to follow through with the cue stick enough to hit the 9-ball with the cue stick (which is illegal). The 9-ball then sends the 2-ball straight to the pocket (see **NV A.3**). Fat chance the real “Minnesota Fats” would have allowed an opponent to execute such a blatantly illegal shot against him in real life ... but that’s Hollywood for you. Hitting the shot fast helps disguise the illegal hit because it is difficult to see at high speeds, but the double hit is obvious based on how the balls react. If the shot were hit legally, with the cue stick hitting only the cue ball, the 9-ball and 2-ball would remain undisturbed (see **NV A.3**).

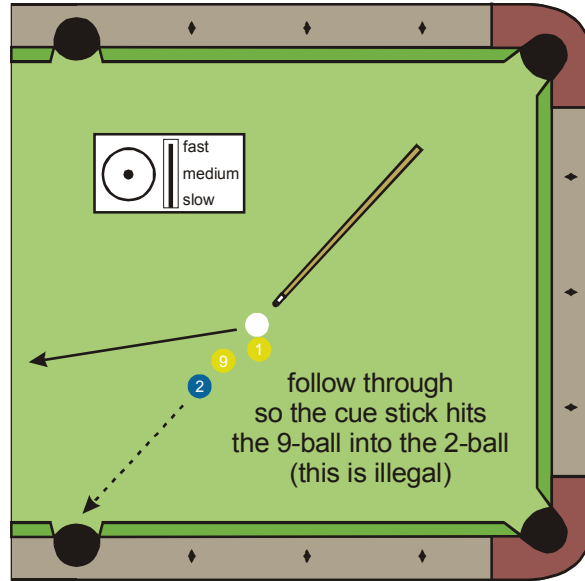


Diagram 2 Illegally pocketing a ball with cue stick follow-through



NV A.3 – Illegally pocketing a ball with cue stick follow-through

Diagrams 3 and 4 illustrate two carom shots that “Fast” Eddie makes after loosing his temper while sharking people in a bar. Unfortunately, his thug opponents did not take too kindly to his sharking and end up breaking his thumbs at the end of the scene ... not one of the more pleasant scenes in the movie. In **Diagram 3**, the 4-ball is frozen to the 9-ball and the line through their centers goes straight to the bottom-right corner pocket. In the shot, the 3-ball is pocketed with top-right English to send the cue ball off the end rail into the 4-ball. The top English (follow) causes the cue ball path to curve away from the tangent line toward the end rail, and the right English helps kick the cue ball off the end rail toward the 4-ball (see **NV A.4**). There is a large margin of error for this shot because if the cue ball touches any part of the 4-ball, the 9-ball will be pocketed. One interesting side note about this shot is that it is unnecessary. With the 4-ball frozen to the 9-ball, there is no need to try to make the 9-ball on the 3-ball shot as shown. Instead, the 3-ball could be pocketed with a slow, center-ball hit, leaving an easy shot on the 4-ball-9-ball frozen combination (see **NV A.4**). However, this would be too boring for movie-viewing audiences. The shot in **Diagram 4** is another carom shot. The cue ball and 1-ball are lined up perfectly so a straight shot caroms the 1-ball off the 2-ball straight into the 9-ball, sending it straight to the side pocket for an easy 9-ball victory (see **NV A.5**). The shots in Diagrams 3 and 4 are great set-ups for a non-pool-expert actor to execute, because they look fairly impressive but don’t require very much skill to execute ... perfect for Hollywood. Actually, the shot in Diagram 3 takes a little practice, and it must be setup carefully, but it’s not too bad.

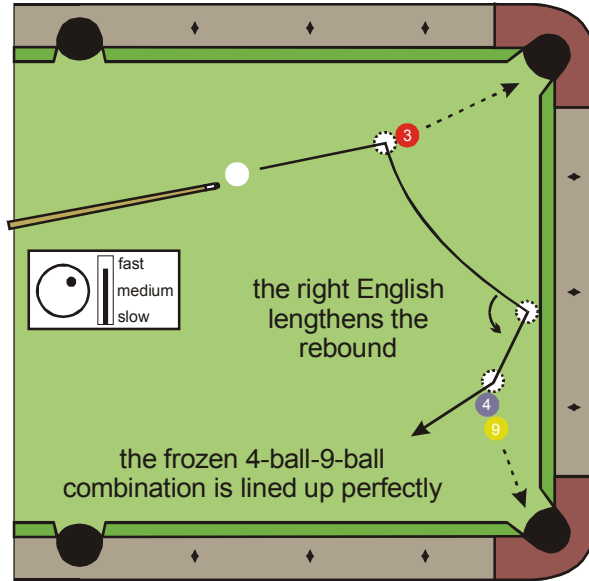


Diagram 3 Cue ball carom into a frozen-ball combination

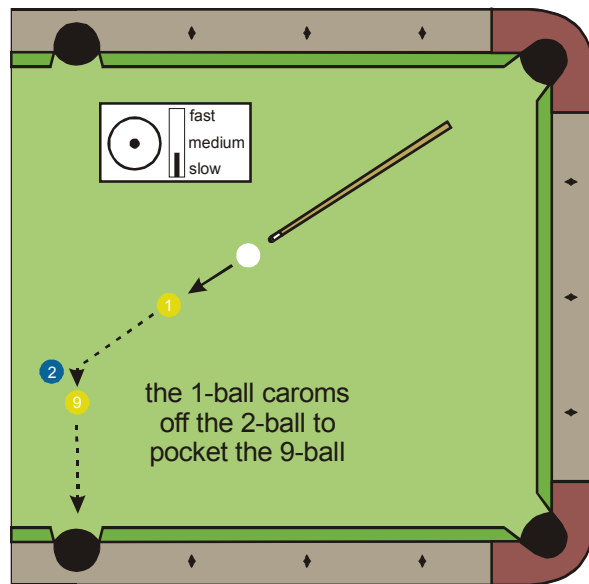


Diagram 4 Perfect set-up carom shot



NV A.4 – Cue ball carom into a frozen-ball combination

NV A.5 – Perfect set-up object ball carom shot

Diagram 5 shows a shot near the end of the movie during “Fast” Eddie’s rematch with “Minnesota Fats.” Here’s an example shot that the actors were not capable of executing. A pro was hired as a consultant/stunt-double to pull this one off. It’s an extreme massé-draw shot where the cue ball is hit with a highly elevated cue stick, bottom English, and a forceful down-stroke. The cue ball caroms off the 1-ball, sending the 1-ball into the pocket, and then the cue ball draws back to pocket the 8-ball (see **NV A.6**). This shot is very difficult to execute if you have

not practiced and developed skill with massé shots before. In fact, after numerous (20-30) attempts, I was not able to pull it off, so in the video I've just included several of my better efforts to give you an idea of how it should work. Where's Mike Massey when you need him? One word of caution: If you do try this shot and if you care about the table on which you are experimenting, I recommend placing a spare piece of table cloth beneath the cue ball so you won't leave multiple permanent marks (or even tears) on the table's cloth. If you don't have a spare piece a cloth lying around, you might be able to get one from a local table-retailer or installer. You should always use a spare piece of cloth under the cue ball when practicing any massé or jump shots, because these shots require cue stick elevation and downward strokes. Not only will the spare piece of cloth protect the table, but it will also make the shots a little easier to execute (while you are learning) because there is a greater thickness of cloth to compress while the cue tip imparts English and speed to the cue ball. Note that, as with the shot in Diagram 3, the shot in Diagram 5 is overkill. The run-out could be carried out much more easily by cutting the 1-ball in with a soft non-massé hit, leaving good position for the 8-ball (see **NV A.6**).

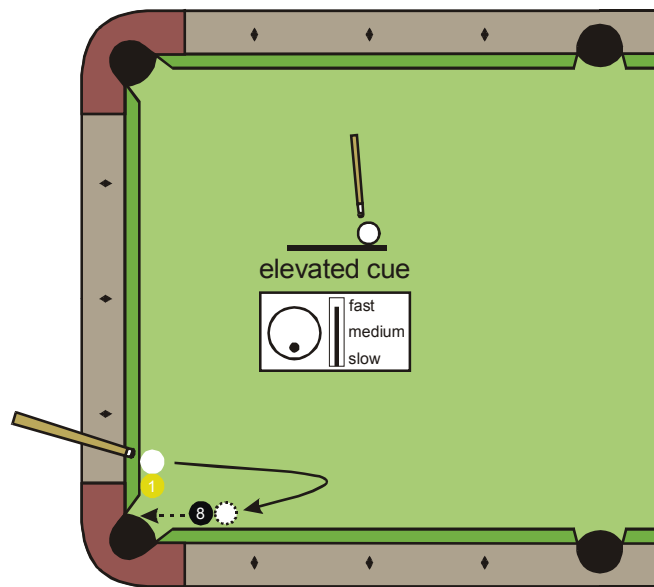


Diagram 5 Massé-draw carom (billiard) shot



normal video

NV A.6 – Massé-draw carom (billiard) shot

Many interesting shots in the movie are from games of Straight Pool. This is the game “Fast” Eddie and “Minnesota Fats” play during their two match-ups. I didn't include any examples particular to the game of Straight Pool in this article; but several interesting break and carom shots are executed in the movie.

I hope you enjoy my “*Billiards on the Big Screen*” series,
Dr. Dave

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